

Patent claims

1. Nucleic acid molecule, **characterized in that**, with respect to at least 10 successive nucleotides of its  
5 nucleotide chain, it

(i) is identical to 10 successive nucleotides of the nucleic acid molecules according to a), b), c), d), e), f), g) or h):

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a) of SEQ ID NO 1 5'-GAA AAA GCA TTT GAA GCC AT-3' or

b) of SEQ ID NO 2 5'-GCA ACT TCC GGC TCA GC-3' or

c) of SEQ ID NO 3 5'-TCG AAA AAG CAT TTG AAG CC-3' or

d) of SEQ ID NO 4 5'-GGT CAG AGT GAA GCT CAT GT-3' or

e) of SEQ ID NO 5 5'-CTI TTC ACA TGA GCT TCA CTC TGA  
CCR A-3' or

f) of SEQ ID NO 6 5'-CTT TTT CTT TCA CTG GGT TTC CGA  
CAT-3' or

g) of SEQ ID NO 7 5'-GAT GAT TTC TTT TTC TTT CAC TGG ATT  
TCC AAT AT-3' or

h) of the sequence complementary in each case to a), b), c), d), e), f) and g); or

15 (ii) matches 9 out of 10 successive nucleotides of the nucleic acid molecules according to (a), (b), (c), (d), (e), (f), (g), or (h) or

(iii) matches 8 out of 10 successive nucleotides of  
20 the nucleic acid molecules according to (a), (b), (c), (d), (e), (f), (g), or (h) or

(iv) is at least 90% homologous to a nucleic acid molecule according to (a), (b), (c), (d), (e),  
25 (f), (g), or (h).

2. Nucleic acid molecule according to claim 1,

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characterized by a length common for probes or primers, in particular for a PCR reaction, in particular by a length of from 10 to 250 and preferably of from 15 to 30 nucleotides.

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3. Nucleic acid molecule

- a) of SEQ ID NO 1 5'-GAA AAA GCA TTT GAA GCC AT-3' or
- b) of SEQ ID NO 2 5'-GCA ACT TCC GGC TCA GC-3' or
- c) of SEQ ID NO 3 5'-TCG AAA AAG CAT TTG AAG CC-3' or
- d) of SEQ ID NO 4 5'-GGT CAG AGT GAA GCT CAT GT-3' or
- e) of SEQ ID NO 5 5'-CTI TTC ACA TGA GCT TCA CTC TGA  
CCR A-3' or
- f) of SEQ ID NO 6 5'-CTT TTT CTT TCA CTG GGT TTC CGA  
CAT-3' or
- g) of SEQ ID NO 7 5'-GAT GAT TTC TTT TTC TTT CAC TGG ATT  
TCC AAT AT-3' or

- h) of the sequence complementary in each case to a),  
10 b), c), d), e), f) and g).

4. Nucleic acid molecule according to any of the preceding claims, **characterized in that** it is present in single-stranded or double-stranded form.

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5. Nucleic acid molecule according to any of the preceding claims, **characterized in that** it is present

- (i) as DNA sequence or
- 20 (ii) as RNA sequence corresponding to (i) or
- (iii) as PNA sequence,

where the nucleic acid molecule is modified, where appropriate, in a manner known per se for analytical  
25 detection methods, in particular for those based on hybridization and/or amplification.

6. Nucleic acid molecule according to any of the

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preceding claims, **characterized in that** up to 20% of at least 10 successive nucleotides of its nucleotide chain, in particular 1 or 2 nucleotides, have been replaced by analogous building blocks known per se for probes and/or primers, in particular by nucleotides not naturally present in bacteria.

7. Nucleic acid molecule according to any of the preceding claims, **characterized in that** the nucleic acid molecule has been modified or labeled by or additionally by having one or more radioactive groups, colored groups, fluorescent groups, groups for immobilization on a solid phase and/or groups for an indirect or direct reaction, in particular for an enzymatic reaction, in particular with the aid of antibodies, antigens, enzymes and/or substances with affinity to enzymes or enzyme complexes, and/or otherwise modifying or modified groups of a nucleic acid-like structure.

8. Kit for analytical detection methods, in particular for detecting bacteria of the species *Listeria monocytogenes*, **characterized by** one or more nucleic acid molecules according to any of the preceding claims.

9. Use of one or more nucleic acid molecules according to any of claims 1 to 7 or of a kit according to claim 8 for detecting the presence or absence of bacteria of the species *Listeria monocytogenes*.

10. Use according to claim 9, **characterized in that** a nucleic acid hybridization and/or a nucleic acid amplification are carried out.

11. Use according to claim 10, **characterized in that** for the nucleic acid amplification a polymerase chain reaction is carried out.

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12. Use according to claim 1 (sic), **characterized in that** the bacteria to be detected are distinguished from the bacteria not to be detected on the basis of differences in the genomic DNA and/or RNA in at least
- 5 one nucleotide position in the region of one of the nucleic acid molecules according to claim 3.

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